OUTLET CITY (DAR SITE ID #132)

Address:	41-16 West Street, Long Island City, New York 11101
Tax Lot Parcel(s):	Queens Tax Lots 412 and 440
Latitude:	40.749044
Longitude:	-73.938726
Regulatory Programs/ Numbers/Codes:	NYSDEC VCP No. V00081, USEPA ID No. NYD053174041, NYSDEC Spill No. 0301857, 9813882, and 9600688, PBS No. 2-237981
Analytical Data Status:	☐ Electronic Data Available ☒ Hardcopies only ☐ No Data Available

1 SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN (COPCs) TRANSPORT PATHWAYS TO THE CREEK

The current understanding of the transport mechanisms of contaminants from the upland portions of the Outlet City site (site) to Newtown Creek is summarized in this section and Table 1, and supported in following sections.

Overland Transport

The site is located 0.35 miles from Dutch Kills. This is not a complete current or historical pathway.

Bank Erosion

The site is not adjacent to Newtown Creek and associated waterways. This is not a complete current or historical pathway.

Groundwater

High concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals have been present at the site in groundwater since at least 1988 (Kinal 2003b; FLS 2009). Light nonaqueous phase liquid (LNAPL) has also been present beneath the site since at least 2007. The site is located approximately 0.35 mile north of Dutch Kills. Groundwater at the site generally flows in a southerly direction, towards

Newtown Creek (FLS 2009). Building foundations at the site appear to provide a preferential pathway for LNAPL migration (FLS 2009). This is a potentially complete current and historical pathway.

Overwater Activities

The site is not adjacent to Newtown Creek and associated waterways. Information regarding overwater activities was not identified in documents available for review. This is not a complete current or historical pathway.

Stormwater/Wastewater Systems

Information regarding on-site stormwater and wastewater infrastructure and management was not found in available documents. This site is within the Bowery Bay WPCP sewershed. Stormwater and wastewater discharges from the site flow into a combined municipal sewer system. When the combined flows exceed the system's capacity, untreated combined sewer overflows (CSOs) are discharged to the East River. Direct discharge of stormwater and wastewater and discharge to sewer/ CSO are not complete current or historical pathways.

Air Releases

In 2004, a blower and associated venting was installed in the basement of Building 4 to remove creosote vapors. Emissions from the air extraction system are below applicable annual and short-term guideline concentrations (Dewes 2010). Indoor air samples collected in a portion of the on-site building contained levels of tetrachlorethene that exceeded the New York State Department of Health Guideline for Indoor Air (NYSDEC 2011). No further information regarding air emissions form the site was identified in documents available for review. There is insufficient evidence to make a current or historical pathway determination.

2 PROJECT STATUS

The site is in the New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program (VCP code V00081). The U.S. Environmental Protection Agency (USEPA) Enforcement & Compliance History Online (ECHO) database indicates Resource Conservation and Recovery Act (RCRA) generator activities are currently ongoing

at the site (USEPA 2011). A number of groundwater and soil investigations have been conducted at the site since 1988. A summary of investigation and remedial activities at the site is provided in the following table.

Activity		Date(s)/Comments
Phase 1 Environmental Site Assessment	☒	Queens Plaza Site Investigation (1988) and Supplemental Site Assessment/Remedial Investigation (1998), Prepared by AKRF, Inc.
Site Characterization	☒	Outlet City Soil and Groundwater Sampling Results (1990), Prepared by AKRF, Inc.; ELM 2001
Remedial Investigation	☒	Supplemental Site Assessment/Remedial Investigation (1998), Prepared by AKRF; Kinal 2003b, FLS 2007
Remedy Selection	☒	AKRF 2003, FLS 2009
Remedial Design/Remedial Action Implementation	☒	Building 4 Air Evacuation System (2004); Free Product Recovery System in Building 4 (2009)
Use Restrictions (Environmental Easements or Institutional Controls)	☐	
Construction Completion	☒	Air Evacuation System: 2004
Site Closeout/No Further Action Determination	☐	

- NYSDEC Site Code(s): VCP Code: V00081
- NYSDEC Site Manager: Unknown

3 SITE OWNERSHIP HISTORY

Respondent Member: ☐ Yes ☒ No

The following table summarizes the ownership history at the site:

Owner	Years	Occupant	Types of Operations
West Disinfecting Company	1901 – 1962	West Disinfecting Company	Manufacturers of disinfectants and disinfectant supplies
West Chemical Products, Inc.	1962 – 1978	West Chemical Products, Inc.	Unknown

Owner	Years	Occupant	Types of Operations
Outlet City, Inc.	1978 - 1983	West Chemical Products, Inc. (lease)	Unknown
	ca. 1980 – present?	QP's Marketplace	Indoor/outdoor discount marketplace
Seamen's Church Institute of New York and New Jersey / The Lord's Day Alliance of the United States	Unknown - 1989	Unknown	Unknown
Shawn Development Corp.	1989 - present	Unknown	Unknown

Note:
Additional discussion and sources provided in Section 6.

4 PROPERTY DESCRIPTION

The site is located approximately 0.35 mile from Newtown Creek and 15 feet above mean sea level. There is a regional slope to the south. The 2.5-acre site consists of 12 multi-story buildings and associated parking areas. The Amtrak Sunnyside Yard (DAR Site ID 102) is adjacent to the south as shown on Figure 1.

The site is bound by Jackson Avenue (north), Queens Boulevard (east), Sunnyside Long Island Rail Road (LIRR) Yard A (south), and Orchard Street (west). The site is partially bisected by West Street, which is no longer a mapped city street, within the confines of the property. Except for the rail yard, the surrounding properties are primarily used for light manufacturing and/or commercial purposes (NYCDCP 2011).

The site has been developed with the current buildings for at least 50 years. Attachment 1 shows the current site development including Buildings 1, 2A, 2B, 2C, 3A, 3B, 4, 5, 6, 6A, 9, and 10; asphalt parking lots A and B; and two small unpaved areas adjacent to the railroad tracks, Areas F and G (formerly used for a railroad siding).

The site buildings are constructed of reinforced concrete frames with wood posts and beams. The buildings have concrete floors (slabs) on their lowest level, at or slightly below the surrounding sidewalk elevations. Building 4 is the only structure with a basement mostly below ground level.

5 CURRENT SITE USE

The site is currently used primarily as offices and a warehouse for retail stores.

6 SITE USE HISTORY

West Disinfecting purchased properties on Block 264 and Block 263 in Queens from 1901 through 1954. The bulk of their property consisted of Block 264, Lot 1 (West Chemical Products, Inc. 1978). Lot 1 eventually comprised more than half of the block and the lengths of West Street and Orchard Street. Around 1917, the West Disinfecting site was bounded on the south by the LIRR tracks to about the middle of the block (Sanborn 1917).

In 1978, West Chemical Products sold their property at 42-16 West Street to Outlet City Inc. and signed a lease to remain on a portion of the property until 1983 (Outlet City, Inc. 1978). QP's Marketplace, a weekend indoor/outdoor discount marketplace operated at the site after West Chemical (Chamber of Commerce 1981-1982, 1990-1991).

In 1989, the Seaman's Church Institute of New York and New Jersey and The Lord's Day Alliance of the United States sold two parcels of land to the Shawn Development Company. The parcels do not have block and lot numbers, but are adjacent to Block 264, Lot 1 and appear to be West Street and Orchard Street from Jackson Avenue to the Long Island Railroad tracks (Seaman's Church Institute of New York and New Jersey 1989; The Lord's Day Alliance of the United States 1989).

7 CURRENT AND HISTORICAL AREAS OF CONCERN AND COPCs

The current understanding of the historical and current potential upland and overwater areas of concern at the site is summarized in Table 1. The following sections provide brief discussion of the potential sources and COPCs at the site requiring additional discussion.

Areas of concern at the site included areas in which disinfectant, soap, deodorant, insecticides detergents, germicide, pharmaceutical and other products were manufactured. Additional areas of concern are areas in which residual contamination exists from historical releases at the site. COPCs associated with these areas of concern include petroleum

hydrocarbons, VOCs, SVOCs, PCBs, metals, pesticide and herbicides, phthalates, and phenolics.

7.1 Uplands

One of the West Chemical Products buildings on Orchard Street contained a laboratory, a filling room, and storage on the second floor. The next building, close to the railroad tracks, contained storage in the basement, shipping on the first floor, plating on the second floor, and bottling on the third floor. Oil tanks were located behind these buildings and near the railroad tracks. The company's offices and a storage area were located on Barn Street (later West Street). The Chemical Department building was near the center of the block c

By 1943, oil tanks were stored in a yard off of Orchard Street. A storage building with a filling building behind it also existed on Orchard Street with the shipping, plating, and bottling building still near the railroad tracks. Unidentified buildings had been built behind the Orchard Street buildings, close to the railroad tracks. A laboratory was on Barn Street and the Chemical Department remained near the center of the block (Sanborn 1947).

Originally known as a disinfectant manufacturer, the company expanded their product line to include soaps, deodorants, floor maintenance products, dermatitis controls, insecticides, paper towels, tamed iodine(R), detergents, germicides, and pharmaceuticals by the 1960s (Chamber of Commerce 1927, 1961).

Large quantities of a light fraction creosote historically were stored at the site for the manufacture of disinfectant “Coroneleum.” Other chemicals and raw materials used on the site by West Chemical included hydrochloric acid, alcohol, resin, fats, and oils (Kinal 2003b).

West Chemical discovered leaks in the aboveground creosote storage tank bottoms located in Area D (see Attachment 1) at some point between 1938 and 1950. The leaks were repaired; however, an undetermined amount of creosote leaked prior to the repairs. Additionally, the contents of a 5,000 gallon aboveground storage tank were deliberately spilled by the Fire Department during a fire at the plant, to prevent the creosote from burning or exploding. During West Chemical plant operations, creosote was reportedly delivered to the fill line at

the rail siding located in Area F and pumped into the fill pipe running to the creosote tanks in Area D; additional releases may have resulted from overfilling during unmonitored chemical transfers (Kinal 2003a).

During the historical creosote release, groundwater and low permeability strata and bedrock directed a portion of the non-aqueous phase liquid (NAPL) to the south and south-southeast, where it flowed along preferential pathways and/or building foundation walls, eventually accumulating and pooling along the Building 4 north and east foundation walls and the slab. The NAPL remains at a high enough saturation with sufficient head enabling it to seep into the basement during high groundwater conditions. Based on summaries provided in FLS 2009, this condition appears to be localized to Building 4.

In addition to product manufacture based activities, West Chemical operated two 500-gallon underground gasoline tanks at the site. These tanks were installed prior to 1938. In 2003, these tanks were closed in place after confirmation soil samples indicated gasoline-related soil concentrations adjacent to the tank were below recommended soil clean-up objectives for gasoline contaminated soil (Kinal 2003a). Four underground fuel oil storage tanks were installed in building No. 10 between 1947 and 1948 and were used for generating heat and process steam. The tanks were closed in place in 1990 and presently remain in Building 10. Prior to the installation of the tanks, coal was used to generate heat for the buildings (Kinal 2003b). These four underground storage tanks (USTs) were identified under PBS No. 2-237981 and are summarized in the following table:

Tank ID	Date Installed	Tank Status	Tank Location	Capacity (Gallons)	Product
001	NR	Closed – In Place 08/01/89	UST	7,500	No. 2 fuel oil
002	NR	Closed – In Place 08/01/89	UST	7,500	No. 2 fuel oil
003	NR	Closed – In Place 08/01/89	UST	10,000	No. 2 fuel oil
004	NR	Closed – In Place 08/01/89	UST	10,000	No. 2 fuel oil

In 1990, Outlet City determined that creosote and petroleum contamination had occurred on the site. Outlet City filed a complaint against West Chemical Products in 1991 to recover costs incurred as a result of the environmental contamination alleged to be committed by West Chemical. A District Court granted judgment in favor of West Chemical in 2002. Outlet City filed an appeal the same year.

7.2 Overwater Activities

The site is not adjacent to Newtown Creek or associated waterways. Information regarding overwater activities was not identified in documents available for review.

7.3 Spills

As described in Section 7.1, an intentional release of creosote occurred around 1950 when the contents of a 5,000 gallon creosote tank were emptied by the Fire Department. In addition, leaks were discovered in aboveground storage tanks at some point between 1938 and 1950. An unknown amount of creosote leaked from the tanks prior to their repair (Kinal 2003b).

Additional spills at the site documented by NYSDEC are summarized in the following table:

NYSDEC Spill No.	Spill Date	Close Date	Material Spilled	Quantity Spilled	Remarks
9600688	03/26/96	05/27/03	Solvents	Unknown	Found in soil samples during site investigation; tank failure caused spill to groundwater
			Paint thinners	Unknown	
			Pesticides	Unknown	
			Tar	Unknown	
9813882	10/01/98	07/22/05	Pesticides	Unknown	Found in soil samples during site investigation; equipment failure caused spill to groundwater
			Paint thinners	Unknown	
			Carbolic acid	Unknown	
			Tar	Unknown	
0301857	05/21/03	05/27/03	Creosote	Unknown	Cause reported as housekeeping
			Gasoline	Unknown	

8 PHYSICAL SITE SETTING

8.1 Geology

The shallow subsurface of the site consists of a fill layer to approximately 5 to 25 feet below grade. Beneath the fill stratum is a 3 to 15-foot thick layer of fine sand with trace quantities of silt and clay seams, with greater quantities of silt and clay in some areas. A glacial till is present beneath the sand layer. The till overlies the bedrock surface, which varies in elevation across the site by as much as 30 feet, with the highest elevation at the central portion of the western property (FLS 2009).

8.2 Hydrogeology

The depth from grade to groundwater varies from 12 to 13 feet below ground surface (bgs) in the northeastern portion of the site and from 2 to 3 feet bgs in the southwestern portion of the site. Groundwater flows generally to the south (FLS 2009).

9 NATURE AND EXTENT (CURRENT UNDERSTANDING OF ENVIRONMENTAL CONDITIONS)

A number of environmental investigations, beginning in 1988, consisted of varying levels of soil and groundwater investigations. The investigations found that VOCs and SVOCs are the primary contaminants of concern at the site, and metals, polychlorinated biphenyls (PCBs), PAHs, and pesticides are of lesser concern. In addition, quarterly indoor air monitoring in the basement of Building 4 is ongoing (FLS 2009; Dewes 2010).

The following sections provide the details of the investigations, and summaries of the results.

9.1 Soil

Soil Investigations	☒ Yes ☐ No
Bank Samples	☐ Yes ☐ No ☒ Not Applicable
Soil-Vapor Investigations	☐ Yes ☒ No

9.1.1 Soil Investigations

Available site records did not contain specific soil investigation reports; however, soil investigations at the site were summarized in the Additional Environmental Investigation Work Plan (Kinal 2003b). Some of the historical soil sampling locations are shown in drawing B-2 from Appendix B of FLS 2009, included as Attachment 2. No other sample location maps were found in available site records. Details of the investigations as described in correspondence with NYSDEC from AKRF, Inc. and are provided as follows (Kinal 2003a):

Soil investigations at the site have identified concentrations of VOCs including benzene, toluene, ethylbenzenes and xylenes (BTEX) as well as SVOCs, including polycyclic aromatic hydrocarbons (PAHs) and phenolic compounds. The highest contaminant concentrations were found in Area E under Building 1 (see Attachment 1, Kinal 2003b).

Queens Plaza Site Investigation, AKRF Inc., August 1988

Soil samples were collected at locations selected based on past uses of the site. Soil borings were advanced at nine locations. Soil samples were generally collected from the surface and at the groundwater interface.

Outlet City Soil and Groundwater Sampling Results, AKRF Inc., August 1990

A soil sampling program was conducted in the open areas of the site as well as under selected buildings. The sample locations included 26 soil borings, with nine borings completed as monitoring wells. In general, borings were advanced to depths of 15 feet below grade or less, with four borings advanced to greater depths ranging from 19 to 36 feet below grade. Three of the soil borings were located along the Orchard Street sidewalk to assess whether contamination had migrated offsite. Soil samples were analyzed for VOCs, SVOC, PCBs, pesticides, metals, and total petroleum hydrocarbon (TPH).

Outlet City Property, Supplemental Site Assessment/Remedial Investigation, AKRF, Inc., October 1998

Soil samples were collected from depths ranging from 0.5 to 3.5 feet below grade at five locations (B-1 through B-5) under buildings 1 and 4 and analyzed for VOCs, SVOCs, pesticides, metals, and cyanide. Soil samples were collected from three sample locations from AKRF's 1990 investigation at specific depths previously exhibiting high total metals

concentrations (generally) less than 3 feet below grade. These samples were analyzed using the toxicity characteristic leaching procedure for lead, chromium, and/or arsenic. Two samples were collected adjacent to the Transit Authority substation and analyzed for PCBs.

ELM Site Investigation, 2001

27 soil borings were advanced to depths of 35 feet bgs, or until refusal was encountered. One to three soil samples were collected from each soil boring. In general, one sample was collected at approximately 10 to 15 feet bgs and one sample was collected at the bottom of the boring. Samples were analyzed for VOCs, SVOCs, pesticides, and metals.

Cumulative soil analytical results from these previous investigations indicate that the VOCs and SVOCs are the primary contaminants at the site. Total VOC concentrations of greater than the 10 parts per million (ppm) Recommended Soil Clean-up Objective (RSCO) presented in NYSDEC Technical Administrative Guidance Memorandum (TAGM) were detected in Areas E, D, F, and G, and under Buildings 1, 3B, 4, 6, 6A, and 10 (see Attachment 1 for building numbers and area designations). The VOCs detected at these locations included primarily BTEX. Chlorinated solvents (tetrachlorethene, trichloroethene, dichloroethane, and dichloroethene) were also detected at relatively lower levels in Areas E and D during the 1998 investigation and in Areas C and D during the 1990 investigation. Total SVOC concentrations exceeding the TAGM 4046 500 ppm RSCO were detected in Areas D, E ,and G and under Buildings 1, 4, 3B, 6A, and 10 (see Attachment 1). The SVOCs detected included primarily polycyclic aromatic hydrocarbons (PAHs) and phenolic compounds. Particularly high levels of contamination were detected in Area E and under Building 1 (see Attachment 1).

In general, metal concentrations detected in soil during previous investigations were consistent with levels typical of urban areas, with relatively higher levels of arsenic, cadmium, and/or lead detected in Areas A, C, F, and G (Kinal 2003b). Extraction procedure (EP) toxicity testing during the 1990 investigation indicated that lead concentrations in soil samples from borings DW-1 and 9-1 (in Area A) exceeded the hazardous waste toxicity criteria (5 mg/l by EP-toxicity method 1310B) (Kinal 2003b).

Pesticides were detected at relatively low concentrations (less than 1-2 ppm) at locations throughout the site, with a relatively higher concentration detected under Building 1 (soil sample boring location B-1) during the 1998 investigation.

9.1.2 Soil Summary

Soil investigations at the site indicated soil total VOC and total SVOC concentrations exceeded the RSCO. The highest concentrations were detected in Area E, under building 1 (see Attachment 1). Pesticides and metals, including a result for lead exceeding the hazardous waste toxicity criteria, were also detected at the site; however, available site documents did not indicate that concentrations exceeded cleanup standards.

9.2 Groundwater

Groundwater Investigations	☒	Yes	☐	No	
NAPL Presence (Historical and Current)	☒	Yes	☐	No	
Dissolved COPC Plumes	☒	Yes	☐	No	
Visual Seep Sample Data	☐	Yes	☐	No	☒ Not Applicable

9.2.1 Groundwater Investigations

Available site records did not contain specific groundwater investigation reports; however, groundwater investigations at the site were summarized in the Additional Environmental Investigation Work Plan (Kinal 2003b). Some of the historical groundwater sampling locations are shown in drawing B-2 from Appendix B of FLS 2009, included as Attachment 2. No other sample location maps were found in available site records. Details of the investigations are provided below:

Queens Plaza Site Investigation, AKRF Inc., August 1988

Three wells were installed at locations selected based on past uses of the site. One of the wells (W-U) was installed at the on-site upgradient location, and two wells (W-D1 and W-D2) were installed at on-site downgradient locations.

Outlet City Soil and Groundwater Sampling Results, AKRF Inc., August 1990

A groundwater sampling program was conducted in the open areas of the site as well as under selected buildings. The sample locations included nine newly installed monitoring wells. In general, wells were screened at depths of 15 feet below grade or less, with one well screened at a deeper depth. Two monitoring wells were located along the Orchard Street sidewalk to assess whether contamination had migrated offsite. Groundwater samples were analyzed for VOCs, SVOC, PCBs, pesticides, metals, and TPH.

ELM Site Investigation, 2001

27 soil borings were advanced to depths of 35 feet bgs, or until refusal was encountered. One to two groundwater samples were collected from the soil borings at depths between 10 to 15 feet bgs. Sixteen of the 27 soil borings were completed as monitoring wells. Samples were analyzed for VOCs, SVOCs, pesticides, and metals.

AKRF Groundwater Investigation, AKRF Inc., September 2002

A complete round of groundwater sampling was performed at the site using existing monitoring wells installed as part of past investigations. LNAPL thickness was measured at each well. Samples were collected and analyzed for VOCs, SVOCs, metals, pesticides, and PCBs.

9.2.2 NAPL Presence (Historical & Current)

The source of the historical creosote release described in Section 7.1 centered in the alleyway, Area E, and in the area immediately west of the alleyway, Area D (see Attachment 1). LNAPL level measurements from wells in the alleyway, where LNAPL thickness was greatest, ranged from 0.1 feet to 6.5 feet during numerous investigations at the site (FLS 2009). Elsewhere on the site, monitoring wells were predominantly free of LNAPL, although it measured up to a maximum of 0.28 feet in Area D.

Historically, preferential pathways have led to the accumulation of NAPL along the Building 4 north and east foundation walls and the slab. The NAPL remains at a high enough saturation with sufficient head enabling it to seep into the basement during high groundwater conditions. NAPL samples taken from the sump in Building 4 indicated the

material was classified as non-hazardous waste under RCRA (Appendix A of FLS 2009). Based on summaries provided in FLS 2009, this condition appears to be localized to Building 4.

9.2.3 Dissolved COPC Plumes

Specific results of groundwater monitoring activities were not found in the available site records. A summary of previous groundwater investigation results is provided in the 2009 Free Product Recovery Work Plan (FLS 2009).

Groundwater sampling throughout the site identified elevated levels of VOCs. In general, elevated concentrations included BTEX; 1, 2-dichloroethane; 1,2,4-trimethylbenzene; 2-butanone' styrene' isopropyltoluene; and, n-propylbenzene.

Groundwater samples collected in the western and southern portions of the site, in Area F, under Buildings 1 and 6A, and along Orchard Street, identified total concentrations of VOCs at levels equal or greater than 1,000 µg/L. These areas also contained the highest levels of soil contamination and/or floating LNAPL.

Total BTEX concentrations in monitoring wells under Building 1 along Orchard Street measured 2,180 µg/L and 10,130 µg/L, respectively. Additionally, significant levels (>1,000 µg/L) of 1,1,2-trichlroethane and/or 1,2-dichloroethane concentrations, acetone, and methylene chloride were detected in groundwater samples from Area F, under Building 1, and along Orchard Street.

SVOCs were detected at the highest concentrations in the western and southwestern portion of the site. SVOCs exceeded 1,000 µg/L in Areas F and G, under Buildings 1, 6A and 10, and along Orchard Street. The SVOCs above 1,000 µg/L in these areas were primarily phenolic compounds and low concentrations of PAHs. Chlorobenzenes, dibenzofuran, and phthalates were also identified at a much lower concentrations. Total SVOCs were also detected in Area A at concentrations between 100 µg/L and 1000 µg/L.

Groundwater throughout the site contains dissolved metals, most of which exceed the technical Operational Guidance Series 1.1.1(TOGS) GA Ambient Water Quality Standards (AWQS; FLS 2009).

Pesticide concentrations exceeded the TOGS GA AWQS at one location. The other groundwater samples were below detection levels or at very low concentrations.

9.2.4 Groundwater Summary

Several groundwater investigations have been conducted at the site as described in Section 9.2.1. Groundwater sampling throughout the site identified elevated levels of VOCs, with the highest concentrations observed in areas D, F, and G (see Attachment 1). These areas correspond with the highest concentrations observed in soil as described in section 9.1. SVOCs and BTEX also were observed at high concentrations in the same area. Groundwater throughout the site contains dissolved metals, most of which exceed the TOGS GA AWQS. In addition, a historical source of creosote exists in areas D and E with NAPL thicknesses measured between 0.1 and 6.5 feet.

9.3 Surface Water

Surface Water Investigation	☐ Yes ☒ No
SPDES Permit (Current or Past)	☐ Yes ☒ No
Industrial Wastewater Discharge Permit (Current or Past)	☐ Yes ☒ No
Stormwater Data	☐ Yes ☒ No
Catch Basin Solids Data	☐ Yes ☒ No
Wastewater Data	☐ Yes ☒ No

9.3.1 Stormwater and Wastewater Systems

Information on stormwater infrastructure was not found in available documents. This site is within the Bowery Bay WPCP sewershed. Stormwater and wastewater discharges from the site flow into a combined municipal sewer system. When the combined flows exceed the system's capacity, untreated combined sewer overflows (CSOs) are discharged to the East River (NYCDEP 2007). On January 25, 2010, Outlet City applied for a discharge permit to discharge groundwater from the Building 4 sump to the 12-inch combined sewer system as

part of the NYSDEC required Interim Remedial Measures (IRM) work plan (Fleming 2010). However, installation of the IRM is temporarily suspended due to structural conditions identified in Building 4 (Panter 2011).

9.4 Sediment

Creek Sediment Data ☐ Yes ☐ No ☒ Not Applicable

Information regarding sediment investigations was not identified in documents available for review.

9.5 Air

Air Permit ☐ Yes ☒ No

Air Data ☒ Yes ☐ No

The NYSDEC database indicates indoor air samples collected in a portion of the on-site building contained levels of tetrachlorethene that exceeded the New York State Department of Health Guideline for Indoor Air (NYSDEC 2011). No specific indoor air sampling data were found in available site records.

In 2004, a blower and associated venting was installed in the basement of Building 4 to remove creosote vapors. As predicted, emissions from the air extraction system are below applicable annual and short-term guideline concentrations (Dewes 2010).

10 REMEDIATION HISTORY (INTERIM REMEDIAL MEASURES AND OTHER CLEANUPS)

Installation of a creosote vapor mitigation system was completed in the basement of Building 4 in January 2004 (Weber and Fleming 2004). The system is designed to evacuate 300 to 1,200 cubic feet per minute from the Building 4 basement to the atmosphere 10 feet above the roof (AKRF 2003).

In 2009, an IRM work plan was prepared for the site to remove LNAPL from the area near Building 4. The recovery system was designed to remove as much LNAPL as possible prior to implementation of a final site remedy (FLS 2009). Installation of the IRM is temporarily suspended due to structural conditions identified in Building 4 (Panter 2011).

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12 ATTACHMENTS

Figures

Figure 1 Site Vicinity Map: Outlet City

Tables

Table 1 Potential Areas of Concern and Transport Pathways Assessment – Outlet City

Supplemental Attachments

Attachment 1 Figure 2. Site Plan (FLS 2009)

Attachment 2 Drawing B-2. Boring Location Plan, Site A (FLS 2009)

Table 1

Potential Areas of Concern and Transport Pathways Assessment – Outlet City

Potential Areas of Concern	Media Impacted					COPCs														Potential Complete Pathway						
						TPH			VOCs																		
Description of Areas of Concern	Surface Soil	Subsurface Soil	Groundwater	Catch Basin Solids	Creek Sediment	Gasoline-Range	Diesel – Range	Heavier – Range	Petroleum Related (e.g., BTEX)	VOCs	Chlorinated VOCs	SVOCs	PAHs	Phthalates	Phenolics	Metals	PCBs	Herbicides and Pesticides	Dioxins/Furans	Overland Transport	Groundwater	Direct Discharge – Overwater	Direct Discharge – Storm/Wastewater	Discharge to Sewer/CSO	Bank Erosion	Air Releases
Western and Southwest Portion of Site (Areas B, D, E, F and G)	?	√	√	?	?	√	?	?	√	√	√	√	√	√	√	√	?	√	?	--	?	--	--	--	--	?
Manufacturing areas	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
Storage tanks	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?

Notes:
√ – COPCs are/were present in areas of concern having a current or historical pathway that is determined to be complete or potentially complete.
? – There is not enough information to determine if COPC is/was present in area of concern or if pathway is complete.
-- – Current or historical pathway has been investigated and shown to be not present or incomplete.

BTEX – benzene, toluene, ethylbenzene, and xylenes
COPC – constituents of potential concern
CSO – combined sewer overflows
PAH – polycyclic aromatic hydrocarbons
PCB – polychlorinated biphenyl
SVOC – semi-volatile organic compounds
TPH – total petroleum hydrocarbons
VOC – volatile organic compounds

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- USEPA Sample Locations (Surface and Subsurface)
- Shoreline (NYC Dept. of Information Technology, 2006)
- USGS Nat'l Elev. Dataset 5-foot Contours
- Selected Site Property Boundary
- Neighboring Site Property Boundary

Outfall Class

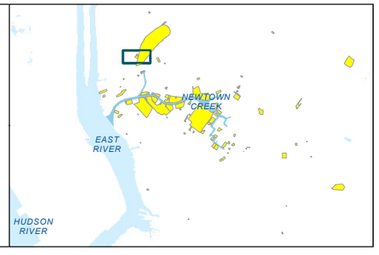
- Direct Discharge
- General
- Highway Drain
- Major Stormwater Outfall
- SPDES
- Storm Drain

NOTES:

1. Outfall Labeling: BB: Bowery Bay; NC(B/Q): Newtown Creek, Brooklyn/Queens; ST: Stormwater.
2. Outfall locations are preliminary, compiled, estimated data based on New York City Department of Environmental Protection (NYCDEP) maps and tabulated data and other resources. Many outfall locations were taken from the New York City Shoreline Survey Program: Newtown Creek Water Pollution Control Plant Drainage Area, NYCDEP, March 31, 2003. Other locations were taken from an excerpt from a similar report from 2008 (the complete report was not included in files available for review). Finally, some outfall locations were inherited from previous Anchor QEA and Newtown Creek Project work. Latitudinal and longitudinal data provided in the 2003 and 2008 NYCDEP reports were rounded to the nearest second. This resulted in potential outfall location discrepancies of up to approximately 200 feet. All outfall locations are currently under field verification.
3. Aerial Photos: New York State Division of Homeland Security and Emergency Services, 2010.
4. Site Boundaries are based on New York City parcels data.
5. Coarse topographic contours are derived from U.S. Geological Survey 10-meter data.

Feet

0 100 200 300 400



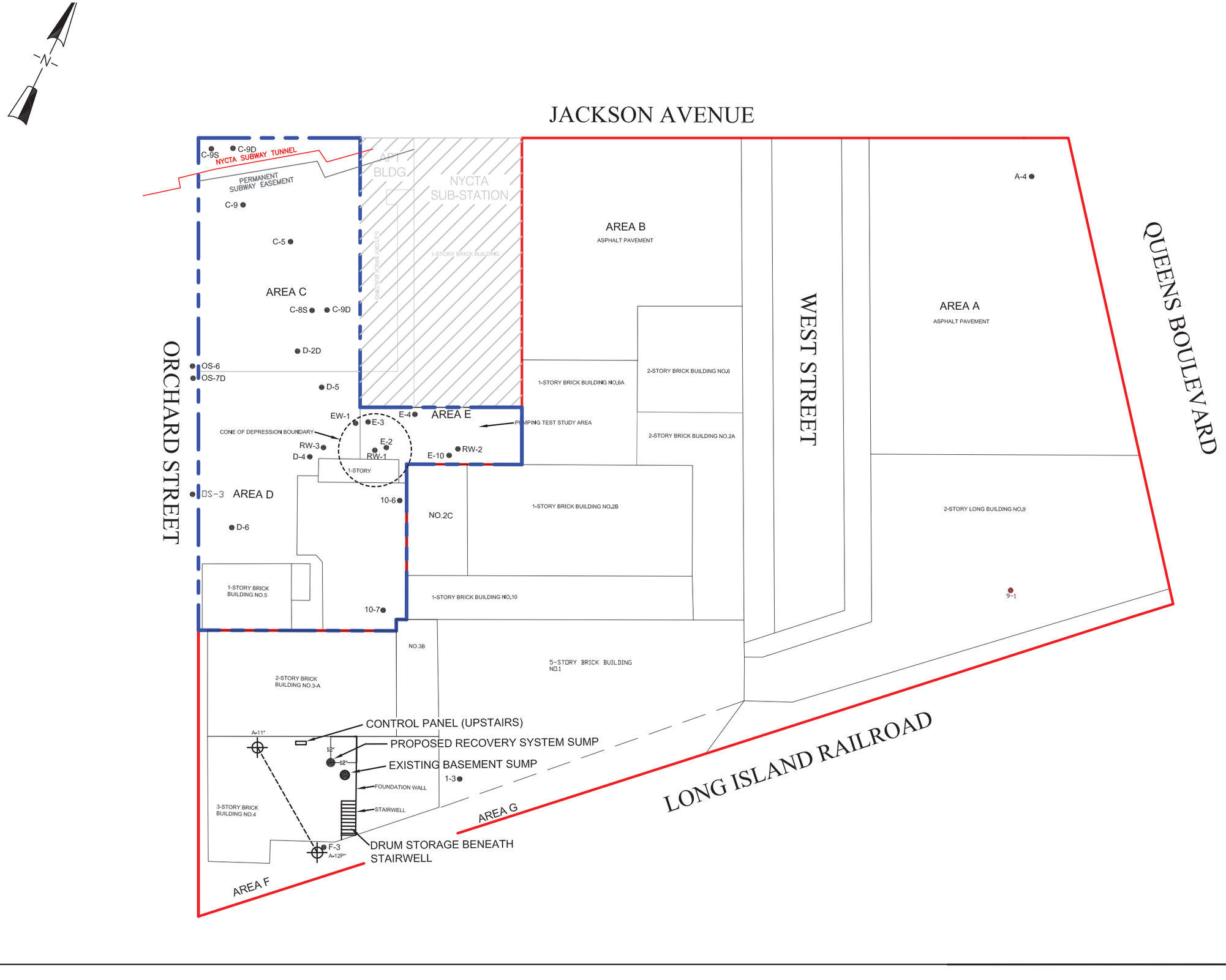
ANCHOR QEA

DRAFT

Figure 1
Site Vicinity Map
Draft Upland Site Summary: Outlet City
Newtown Creek RI/FS

SUPPLEMENTAL ATTACHMENTS

Attachment 1



P:\Project Files\10038 - Outlet City\006 - IRM\CADD\10038-005 Figures 2 and 3 Outlet City_Site Plan_040708

Fleming Lee Shue

Environmental Management & Consulting

158 West 29th Street, 9th Fl.
New York, NY 10001

OUTLET CITY
LONG ISLAND CITY, NY

FIGURE 2

SITE PLAN

Date
APRIL 2008

Project Number
10038-005

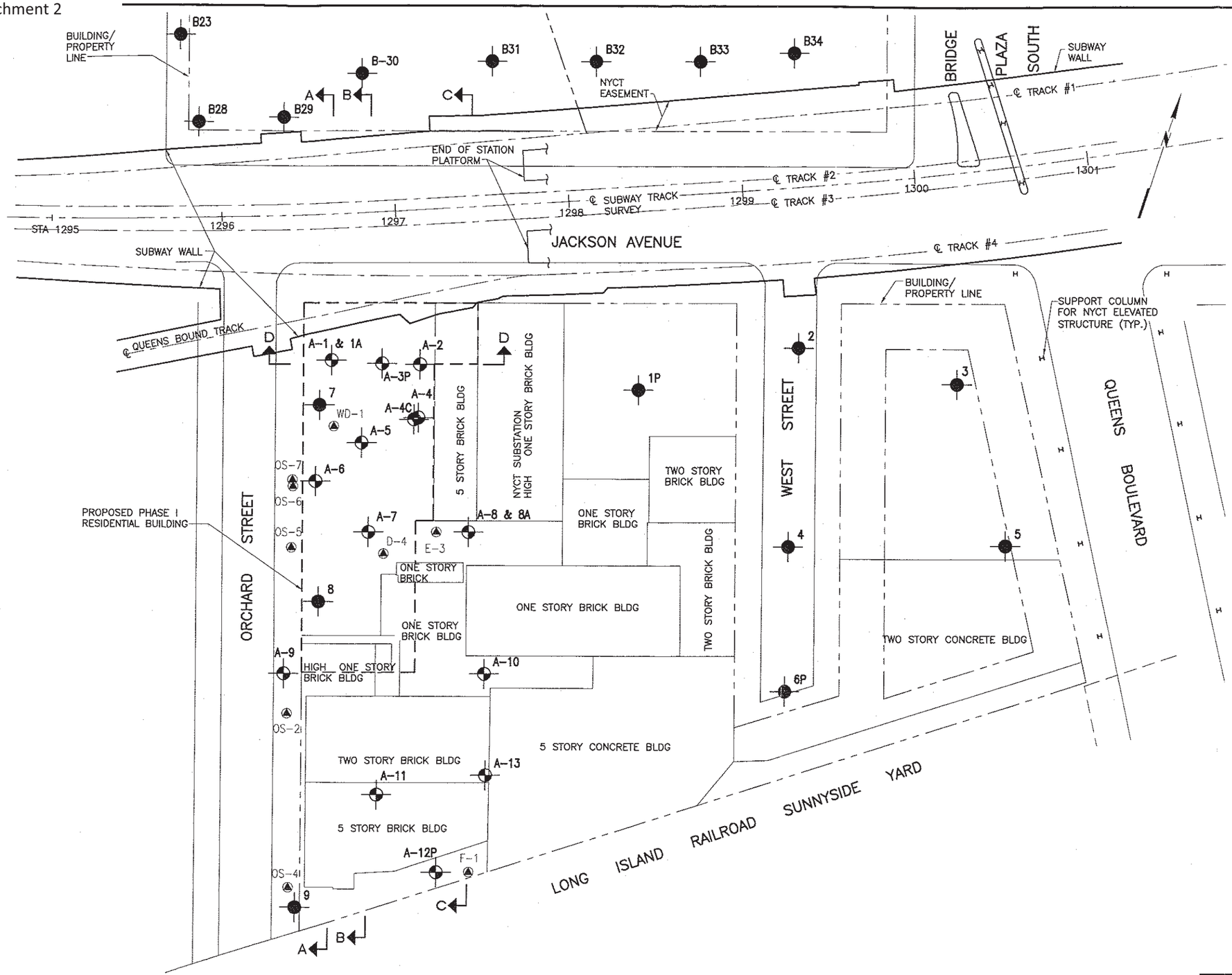
LEGEND

- BCP SITE BOUNDARY
- BOUNDARY OF OUTLET CITY VCP SITE
- LIMIT OF CONE OF DEPRESSION DURING STEP DRAWDOWN PUMPING TEST
- NOT PART OF SITE
- 10-7 ● SOIL SAMPLE/MONITORING WELL LOCATION

Notes:
All locations approximate
MAP SOURCE: TISHMAN SPEYER 2007 DEVELOPMENT DRAWINGS MASTER PLAN

0' 30' 60'
APPROXIMATE SCALE

Attachment 2



NOTES:

1. PLAN BASED ON SURVEY BY MONTROSE SURVEYING CO., INC., DATED 7–25–88.
2. SUBWAY LOCATIONS AND ELEVATIONS WERE OBTAINED FROM NYCT DRAWINGS FOR ROUTE NO. 108, SECTION NO.1, SUBSECTIONS NOS. 1 AND 2, DRAWINGS NOS. 302, 375, 376, 378, 379, 380, 336, AND 340, DATED MARCH AND APRIL, 1929.
3. LOCATIONS AND ELEVATIONS FOR QUEENS BOUND TRACK WERE OBTAINED FROM NYCT DRAWINGS FOR ROUTE NO. 125A, SECTION 2, SUBSECTION NO. 7, DRAWING NO. 346, DATED 1951.
4. DETAILS OF ELEVATED TRANSIT STRUCTURE WERE OBTAINED FROM SURVEY BY MONTROSE SURVEYING CO., INC., DATED 7–25–88, AND NYCT DRAWINGS FOR ROUTE NO. 36 AND 37, SECTION NO. 1, DATED DECEMBER, 1913 AND MARCH, 1914.
5. BORINGS NOS. 1P THROUGH 9 WERE MADE IN SEPTEMBER–OCTOBER, 1988 FOR QUEENS PLAZA PROJECT, BY JERSEY BORING AND DRILLING CO., INC. UNDER CONTINUOUS INSPECTION BY MUESER RUTLEDGE CONSULTING ENGINEERS (MRCE).
6. BORINGS NOS. A–1 THROUGH A–13 WERE MADE IN FEBRUARY–MARCH, 2007 BY JERSEY BORING AND DRILLING CO., INC. UNDER CONTINUOUS INSPECTION BY MRCE.
7. AS–DRILLED BORINGS LOCATIONS & GROUND SURFACE ELEVATIONS FOR BORINGS NOS. A–1 THROUGH A–13 WERE SURVEYED BY MONTROSE SURVEYING CO., LLP.

LEGEND:

A–1 –BORING MADE IN 2007.
"P" INDICATES PIEZOMETER INSTALLATION.
"A" INDICATES OFFSET FROM ORIGINAL LOCATION

1P –BORING MADE IN 1988.
"P" INDICATES PIEZOMETER INSTALLATION.

–OBSERVATION WELL INSTALLED UNDER INSPECTION BY FLEMING LEE SHUE.

GRAPHIC SCALE
30' 20' 10' 0 30' 60'

REV.	DATE	BY	DESCRIPTION
3	3/20/07	RTW	REMOVED DIMENSIONS. RELOCATED BORINGS TO AS–DRILLED. REVISED NOTES & LEGEND. REVISED SECTION MARKS.
2	2/13/07	A.H.	RELOCATED BORINGS A–1, A–2, A–3P, A–4, A–5.
1	1/31/07	A.H.	ADDED SUBWAY DETAILS, ELEVATED COLUMNS, BLDG. LINE, BORING DIMENSIONS.

QUEENS PLAZA
QUEENS NEW YORK

TISHMAN SPEYER PROPERTIES
NEW YORK NEW YORK

MUESER RUTLEDGE CONSULTING ENGINEERS
14 PENN PLAZA – 225 W. 34TH STREET, NY, NY 10122

SCALE	MADE BY A.H./A.P. DATE 01–09–07	FILE NO.
GRAPHIC	CH'KD BY R.T.W. DATE 01–17–07	10608

BORING LOCATION PLAN SITE A — DRAWING NO. B–2

Apr. 19, 2007 at 4:56pm
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